



PATENT
Customer No. 22,852
Attorney Docket No. 05725.0545

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marie-Pascale AUDOUSSET

Application No.: 09/485,904

Filed: March 22, 2000

For: OXIDATION DYEING
COMPOSITION FOR
KERATINOUS FIBRES AND
DYEING METHOD USING SAME

Group Art Unit: 1751

Examiner: M. Einsmann

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

I, Marie-Pascale AUDOUSSET, do hereby make the following declaration:

1. I am a French citizen, residing at 1, Allée Louis JOUVET, 92600
ASNIERES, FRANCE.
2. I have been awarded a Doctorate degree in Organic Chemistry from the
Ecole Nationale Supérieure de Chimie de Paris (E.N.S.C.P.), FRANCE.
3. I have been employed by L'ORÉAL since 1986, and I am presently a
Laboratory Supervisor of the Dyes Development Research Laboratories of L'ORÉAL.
During my employment at L'ORÉAL, I have been engaged in research and development
regarding hair dyeing.
4. I understand the rejections made in the Office Action of October 25, 2002.

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5. Given my education and experience, particularly in the area of hair dyeing, I consider myself able to provide the following testimony based on experiments conducted by me or under my supervision.

6. The following compositions were prepared (amounts set forth in grams):

	1 st Oxidation Base	2 nd Oxidation Base	Coupler	Coupler		
	3,7 diamino-pyrazolo pyrimidine, 2HCL	N,N-bis-(β -hydroxyethyl)para-phenylenediamine sulfate	1-methyl-2-hydroxy-4- β -hydroxyethyl-amino benzene	1- β -hydroxy-ethyloxy 2,4-diamino-benzene, 2HCL	support	H ₂ O
Example 1 (Inventive)	0.666	0.936	1	-	(*)	q.s.p. 100 g
Example 2 (Comparative)	1.332	-	1	-	(*)	q.s.p. 100 g
Example 3 (Inventive)	0.666	0.936	-	1.446	(*)	q.s.p. 100 g
Example 4 (Comparative)	1.332	-	-	1.446	(*)	q.s.p. 100 g

Support (*)

Polyglycerolated oleyl alcohol containing 2 mol of glycerol	4 g
Polyglycerolated oleyl alcohol containing 4 mol of glycerol containing 78 % of A.S. (active substance)	5.69 g A.S.
Oleic acid	3.0 g
Oleyl amine containing 2 mol of ethylene oxide, sold under the trade name ETHOMEEN O12® by the company Akzo	7 g
Diethylaminopropyl laurylamino succinamate, sodium salt as an aqueous solution containing 55% of A.S.	3 g A.S.
Oleyl alcohol	5 g
Oleic acid diethanolamide	12 g
Propylene glycol	3.5 g
Ethyl alcohol	7.0 g
Dipropylene glycol	0.5 g
Propylene glycol monomethyl ether	9 g
Sodium metabisulphite as an aqueous solution comprising 35 % of A.S.	0.455 g A.S.
Ammonium acetate	0.8 g
Antioxidizing agent, sequestering agent	q.s.
Fragrance, preserving agent	q.s.
Aqueous ammonia comprising 20% of NH ₃	10 g

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At the time of use, each composition was mixed with the same amount of 20 volume hydrogen peroxide (6% by weight). The obtained mixture was then applied on locks of grey hair containing 90% of white permed hair (pH). After 30 minutes, the locks were rinsed, washed with a standard shampoo, rinsed again, and dried.

The thus colored locks were submitted to a resistance test comprising exposing the locks simultaneously to the action of light and water.

The light exposure was carried out with a Xenotest 150S at about 1250 W/m². As for the exposure to water, the locks were subjected to water, then to a dry period, then subjected to water again, then to another dry period. The complete test lasted about 40 hours.

The color of the locks was evaluated in the L*a*b* system with a Minolta CM2022 D65 spectrophotometer before and after the test. The color degradation was measured with ΔE according to the following formula:

$$\Delta E = [(L_0^* - L^*)^2 + (a_0^* - a^*)^2 + (b_0^* - b^*)^2]^{1/2}$$

wherein L_0^* , a_0^* , and b_0^* are the values before the resistance test and L^* , a^* , and b^* are the values after the resistance test. The higher the value for ΔE , the greater the difference of color between the two locks.

The results are reported in the following table.

	Color before the resistance test			Color after the resistance test			ΔE
	L*	a*	b*	L*	a*	b*	
Example 1 (Inventive)	18.2	5.2	-3.3	28.8	8.3	-2.7	11.1
Example 2 (Comparative)	36.1	29.0	21.6	45.9	18.8	18.5	14.5
Example 3 (Inventive)	18.5	1.7	-5.9	18.2	1.3	-4.5	1.5
Example 4 (Comparative)	20.4	10.9	0.7	20.8	14.8	2.0	4.5

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These results show that a composition containing pyrazolopyrimidine as a first oxidation base, N,N-bis-(β -hydroxyethyl)-para-phenylenediamine as a second base, and a meta-aminophenol coupler (Example 1) exhibits a more resistant coloration (lower ΔE) than the coloration resulting from a comparative composition containing as a single base the same pyrazolopyrimidine and the same coupler (Example 2). A similar result is obtained with the composition of Example 3, which contains pyrazolopyrimidine as a first base, N,N-bis-(β -hydroxyethyl)-para-phenylenediamine as a second base, and a meta-phenylenediamine coupler, over Example 4.

7. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: October ^{10/2} 2003

November 6th 2003.

By: Marie Pascale AUDOUSSET
Dr. Marie-Pascale AUDOUSSET